

- d.5. (C.A.S. #124-40-3) Dimethylamine;
- d.6. (C.A.S. #506-59-2) Dimethylamine hydrochloride;
- d.7. (C.A.S. #7664-39-3) Hydrogen fluoride;
- d.8. (C.A.S. #3554-74-3) 3-Hydroxyl-1-methylpiperidine;
- d.9. (C.A.S. #76-89-1) Methyl benzilate;
- d.10. (C.A.S. #1314-80-3) Phosphorus pentasulfide;
- d.11. (C.A.S. #75-97-8) Pinacolone;
- d.12. (C.A.S. #151-50-8) Potassium cyanide;
- d.13. (C.A.S. #7789-23-3) Potassium fluoride;
- d.14. (C.A.S. #7789-29-9) Potassium bifluoride;
- d.15. (C.A.S. #3731-38-2) 3-Quinuclidone;
- d.16. (C.A.S. #1333-83-1) Sodium bifluoride;
- d.17. (C.A.S. #143-33-9) Sodium cyanide;
- d.18. (C.A.S. #7681-49-4) Sodium fluoride;
- d.19. (C.A.S. #1313-82-2) Sodium sulfide;
- d.20. (C.A.S. #637-39-8) Triethanolamine hydrochloride;

**1C351 Human pathogens, zoonoses, and “toxins”, as follows (see List of Items Controlled).**

#### License Requirements

*Reason for Control:* CB, CW, AT

#### Control(s)

#### Country Chart

CB applies to entire entry    CB Column 1

CW applies to 1C351.d.5 and d.6 and a license is required for CW reasons for all destinations, including Canada, as follows: CW applies to 1C351.d.5 for ricin in the form of 1) Ricinus Communis Agglutinin<sub>II</sub> (RCA<sub>II</sub>), also known as ricin D or Ricinus Communis Lectin<sub>III</sub> (RCL<sub>III</sub>); and 2) Ricinus Communis Lectin<sub>IV</sub> (RCL<sub>IV</sub>), also known as ricin E. CW applies to 1C351d.6 for saxitoxin identified by C.A.S. #35523-89-8. See §742.18 of the EAR for licensing information pertaining to chemicals subject to restriction pursuant to the Chemical Weapons Convention (CWC). The Commerce Country Chart is not designed to determine licensing requirements for items controlled for CW reasons.

AT applies to entire entry    AT Column 1

#### License Exceptions

LVS:    N/A  
GBS:    N/A  
CIV:    N/A

#### List of Items Controlled

*Unit:* \$ value.

*Related Controls:* Certain forms of ricin and saxitoxin in 1C351.d.5. and d.6 are CWC Schedule 1 chemicals (see §742.18 of the EAR). The U.S. Government must provide advance notification and annual reports to the OPCW of all exports of Schedule 1 chemicals. See §745.1 of the EAR for notification procedures. See 22 CFR part 121, Category XIV and §121.7 for additional CWC Schedule 1 chemicals controlled by the Department of State. All vaccines and "immunotoxins" are excluded from the scope of this entry. Certain medical products and diagnostic and food testing kits that contain biological toxins controlled under paragraph

(d) of this entry, with the exception of toxins controlled for CW reasons under d.5 and d.6, are excluded from the scope of this entry. Vaccines, “immunotoxins”, certain medical products, and diagnostic and food testing kits excluded from the scope of this entry are controlled under ECCN 1C991. For the purposes of this entry, only saxitoxin is controlled under paragraph d.6; other members of the paralytic shellfish poison family (e.g. neosaxitoxin) are classified as EAR99.

*Related Definitions:* 1.) For the purposes of this entry “immunotoxin” is defined as an antibody-toxin conjugate intended to destroy specific target cells (e.g., tumor cells) that bear antigens homologous to the antibody. 2.) For the purposes of this entry “subunit” is defined as a portion of the “toxin”.

*Items:*

a. Viruses, as follows:

- a.1. Chikungunya virus;
- a.2. Congo-Crimean haemorrhagic fever virus;
- a.3. Dengue fever virus;
- a.4. Eastern equine encephalitis virus;
- a.5. Ebola virus;
- a.6. Hantaan virus;
- a.7. Japanese encephalitis virus;
- a.8. Junin virus;
- a.9. Lassa fever virus
- a.10. Lymphocytic choriomeningitis virus;
- a.11. Machupo virus;
- a.12. Marburg virus;

- a.13. Monkey pox virus;
- a.14. Rift Valley fever virus;
- a.15. Tick-borne encephalitis virus (Russian Spring-Summer encephalitis virus);
- a.16. Variola virus;
- a.17. Venezuelan equine encephalitis virus;
- a.18. Western equine encephalitis virus;
- a.19. White pox; *or*
- a.20. Yellow fever virus.

b. Rickettsiae, as follows:

- b.1. Bartonella quintana (Rochalimea quintana, Rickettsia quintana);
- b.2. Coxiella burnetii;
- b.3. Rickettsia prowasecki; *or*
- b.4. Rickettsia rickettsii.

c. Bacteria, as follows:

- c.1. Bacillus anthracis;
- c.2. Brucella abortus;
- c.3. Brucella melitensis;
- c.4. Brucella suis;
- c.5. Burkholderia mallei (Pseudomonas mallei);
- c.6. Burkholderia pseudomallei (Pseudomonas pseudomallei);
- c.7. Chlamydia psittaci;
- c.8. Clostridium botulinum;

c.9. *Francisella tularensis*;c.10. *Salmonella typhi*;c.11. *Shigella dysenteriae*;c.12. *Vibrio cholerae*;c.13. *Yersinia pestis*.

d. "Toxins", as follows: and "subunits" thereof:

d.1. Botulinum toxins;

d.2. *Clostridium perfringens* toxins;

d.3. Conotoxin;

d.4. Microcystin (cyanginosin);

d.5. Ricin;

d.6. Saxitoxin;

d.7. Shiga toxin;

d.8. *Staphylococcus aureus* toxins;

d.9. Tetrodotoxin;

d.10. Verotoxin; *or*

d.11. Aflatoxins.

**1C352 Animal pathogens, as follows (see List of Items Controlled).****License Requirements***Reason for Control:* CB, AT*Control(s)**Country Chart*

CB applies to entire entry

CB Column 1

AT applies to entire entry

AT Column 1

**License Exceptions**

LVS: N/A

GBS: N/A

CIV: N/A

**List of Items Controlled***Unit:* \$ value*Related Controls:* All vaccines are excluded from the scope of this entry. See also 1C991.*Related Definition:* N/A*Items:*

a. Viruses, as follows:

a.1. African swine fever virus;

a.2. Avian influenza virus that are:

a.2.a. Defined in EC Directive 92/40/EC (O.J. L.16 23.1.92 p.19) as having high pathogenicity, as follows:

a.2.a.1. Type A viruses with an IVPI (intravenous pathogenicity index) in 6 week old chickens of greater than 1.2; *or*

a.2.a.2. Type A viruses H5 or H7 subtype for which nucleotide sequencing has demonstrated multiple basic amino acids at the cleavage site of haemagglutinin;

a.3. Bluetongue virus;

a.4. Foot and mouth disease virus;

a.5. Goat pox virus;

a.6. Porcine herpes virus (Aujeszky's disease);

a.7. Swine fever virus (Hog cholera virus);

a.8. Lyssa virus;

a.9. Newcastle disease virus;

a.10. Peste des petits ruminants virus;